

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number
WO 2005/078145 A1

(51) International Patent Classification⁷: C22B 3/36, 3/26, 3/28, 21/00

(21) International Application Number: PCT/AU2005/000192

(22) International Filing Date: 16 February 2005 (16.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 2004900768 16 February 2004 (16.02.2004) AU

(71) Applicant (for all designated States except US): TECHNOLOGICAL RESOURCES PTY. LIMITED [AU/AU]; 55 Collins Street, Melbourne, Victoria 3000 (AU).

(72) Inventor; and

(75) Inventor/Applicant (for US only): SHAW, Raymond, Walter [AU/AU]; 514 Rathdowne Street, Carlton North, Victoria 3054 (AU).

(74) Agent: GRIFFITH HACK; 509 St Kilda Road, Melbourne, Victoria 3004 (AU).

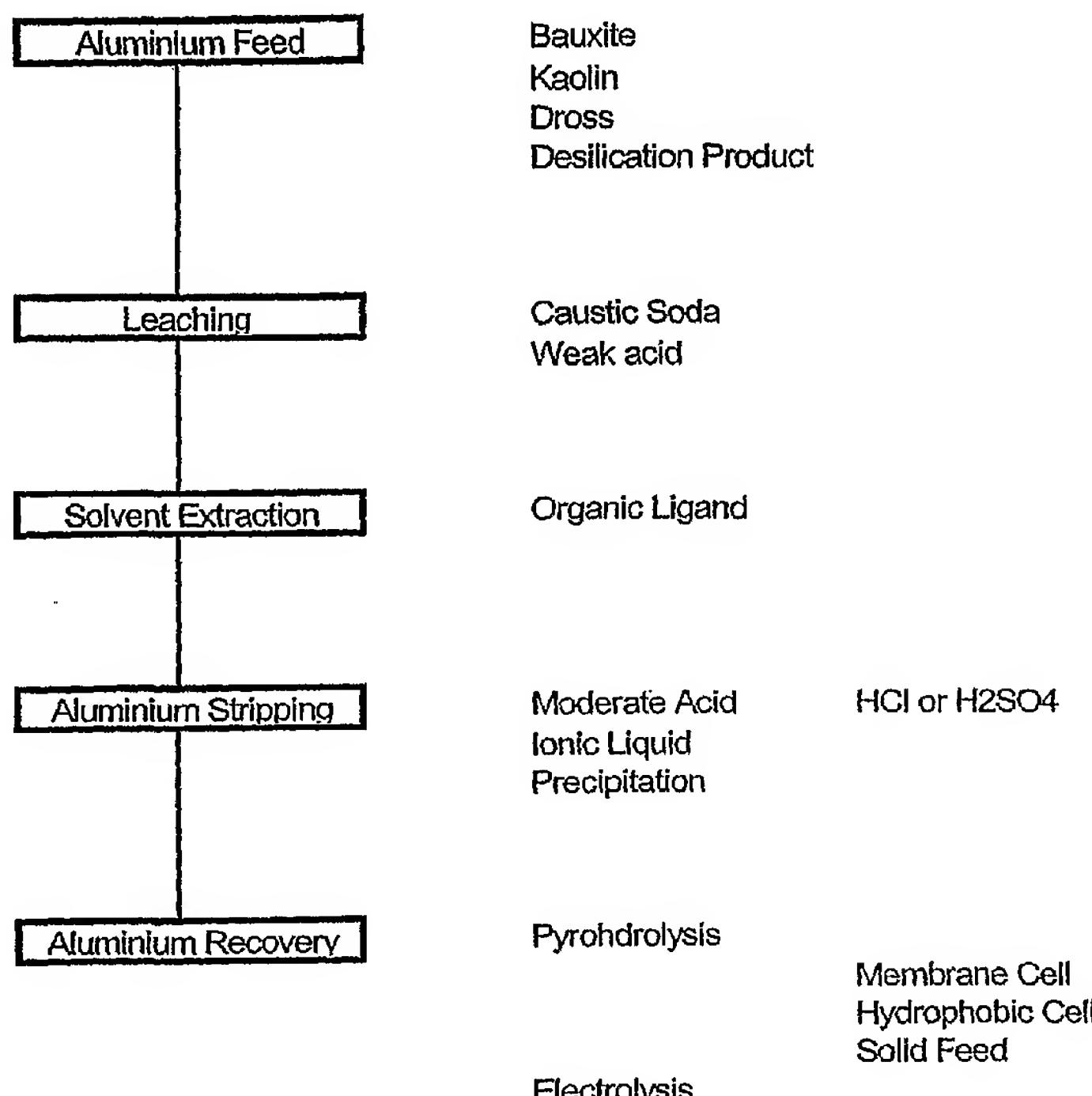
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: ALUMINIUM PRODUCTION PROCESS

Aluminium Process Flowsheet



(57) Abstract: A process of producing aluminium and aluminium-containing materials from a solid aluminium-containing feed material is disclosed. The process comprises leaching the aluminium-containing feed material with a leach liquor and forming an aqueous solution containing aluminium ions, extracting aluminium ions from the aqueous solution by contacting the aqueous solution with an organic reagent and loading aluminium ions onto the organic reagent and forming an aluminium complex, and recovering aluminium or an aluminium-containing material from the aluminium complex.

WO 2005/078145 A1



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.